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Doppler et al.(10) **Pub. No.: US 2015/0124712 A1**(43) **Pub. Date: May 7, 2015**(54) **METHODS AND APPARATUS FOR
WIRELESS NETWORKING**(52) **U.S. Cl.**CPC *H04W 74/04* (2013.01)(71) Applicant: **Nokia Corporation**, Espoo (FI)

(57)

ABSTRACT(72) Inventors: **Klaus Franz Doppler**, Berkeley, CA
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Systems and techniques for management of wireless network transmission. A high efficiency wireless network that can operate using a contention free period defines an interframe space that is shorter than the interframe space used in legacy networks, so that a legacy network will be unable to contend for the medium if the high efficiency wireless network transmits during the contention free period. Before the contention free period begins, a high efficiency network element examines a transmission medium, and if an ongoing transmission extends into the contention free period, transmission by the high efficiency network is delayed until the end of the ongoing transmission. The high efficiency wireless network uses an interframe space sufficiently short that a legacy network cannot contend for the medium. After the contention free period, the high efficiency network uses an interframe space value on the order of that used by the legacy network.

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